

Annex D: Objectives, indicators and outcomes of selected EEC interventions in Thailand Malaysia, and Indonesia

Development Objective and Indicator(s)	Achievements vs. Development Objective indicator	Immediate Objective and Indicators	Achievement vs. Immediate Objective indicators (focus on contributions from EEC support)
Project: Development of an Energy Efficiency Promotion Strategy for Industries and Buildings. Thailand (2001-2004)			
Objective: Strategies implemented for more efficient use of energy in buildings and industries Indicator: Reduced energy consumption in factories and buildings	Energy intensity stayed at the same level (0.22) in 2002 as in 2012.	Objective: Improvement of existing Energy Building Code Increased awareness and knowledge of EE building design	Revised Building Energy Code (approved 2009) A subsidy scheme for investing in EE equipment 30% subsidy scheme for Renewable Energy Some effect on public buildings (due to Building Code), limited effect on private buildings and factories (lack of enforcement).
Project: Regional Energy Planning. Thailand (2005-2007)			
Objective: The Thai Government's strategic energy targets as formulated in the 2003 "Energy Strategy for Competitiveness" are reached in due time Indicator: Increase in share of RE from 0.5% of the commercial primary energy in 2002 to 8% of the commercial primary energy by the year 2011. Indicator: Thailand's energy elasticity (ratio of energy consumption growth rate to the GDP growth rate) decreased from the 2002 level of 1.4:1 to 1:1 by 2007.	Increase in RE share (electricity) of total energy consumption from 0.5% in 2006 to 12% in 2014 (target of 30% by 2036) Energy elasticity decreased from 1.4 in 2002 to 0.2 in 2007	Objective: The Thai energy sector is capacitated to develop and implement effective and coherent energy plans at national, regional and local levels in support of the "Energy Strategy for Competitiveness" Indicator: Effective and operational regional energy plans have been developed by the 12 Regional Energy Offices. Indicator: A coherent framework for regional energy planning has been developed and adopted by MoEn.	Thailand Energy Outlook 2003 developed Local Energy Planning Centre established within the Ministry of Energy in 2008 A substantial number of local energy planners has been training and provided with planning tools Funding earmarked for REP in national budgets from 2008. Energy Regulatory Commission established in 2009
Project: Promotion of Renewable Energy Technologies. Thailand (2003-2007)			
Objective: Reduced greenhouse gas emission through increased self-reliance on renewable sources of energy Indicator: Increased share of RE in total energy consumption	Increase in RE share (electricity) of total energy consumption from 0.5% in 2006 to 12% in 2014 (target of 30% by 2036)	Objective: Strengthened national capacities in formulation of strategies and action plans for RE technologies. Indicator: Cost-effective strategies with action plans developed for dissemination of RE Technologies with promising market potential in Thailand adopted and implemented by the Government	Renewable Energy Power Action Plan developed. RE Technologies with promising market potentials in relation to availability and financial feasibility assessed (mainly biomass/biogas). Various CDM projects developed (mainly biogas) Feed-in tariff for RE introduced from end-2006
Project: Renewable Energy and Energy Efficiency Component. Malaysia (2002-2006)			
Objective: Resource mobilisation for implementation of RE and EE in national development plans has increased considerably Indicator: National budget allocations to renewable energy and energy efficiency have increased.	Recognition of RE as the fifth fuel in the 8th Malaysia Plan 2001-2005 and Introduction of a national RE target of 5%. Introduction of specific targets	Objective: Strengthened capacity to significantly increase the role of RE and EE in planning, policies and programmes Indicator: Regulatory instruments and institutional arrangements in place to promote RE and EE.	The Sustainable Energy Development Agency and an Energy Information Bureau established. Design of low energy demonstration buildings. Approval of Building Code on Energy Efficiency, a Green Building Index and the inclusion of energy

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Indicator: National Plans and policies include ambitious targets and provides increased resources for RE and EE.	for grid connected and off-grid RE in the power mix. National RE target of 17% by 2030 in the Renewable Energy Policy and Action Plan 2010	Indicator: CDM projects within RE	efficiency in Unified Building Bye Laws. Development, registration and implementation of several CDM projects.
Project: Capacity building in the Energy Commission on Energy Efficiency and Demand Side Management. Malaysia (2001-2006)			
Objective: Increased energy efficiency in end-use consumption, leading to improved cost effectiveness and reduced environmental impacts Indicator: Improved energy efficiency Indicator: Decoupling of growth and energy consumption	The energy intensity of the economy declined from 0.26 in 2002 to 0.23 in 2012 EE is increasingly being applied in buildings and industries. The national energy intensity has slightly declined.	Objective: Malaysian concept for DSM developed Objective: Strengthened capacity in Energy Commission Indicator: Malaysian DSM strategy developed. Indicator: Staff with relevant qualifications to analyse and draft EE strategies and regulation	Energy Efficiency and Demand Side Management are key concepts in Government policies, including Minimum Energy Performance Standards for electrical equipment and labelling of appliances. Included in the 2012 Energy Efficiency Act, and the 2016 Energy Efficiency Action Plan.
Project: Support to the establishment of CETREE - the national centre for education and training on renewable energy, energy efficiency and green technology. Malaysia (2000-2004)			
Objective: Increase the role and utilization of renewable energy and energy efficiency Indicator: Renewable Energy and Energy Efficiency have a significant role in the provision of energy services in Malaysia	Uptake of RE has been slow but the Government plans to increase the share of RE significantly up to 2020. EE is increasingly being applied in buildings and industries. The national energy intensity has slightly declined.	Objective: Renewable energy and energy efficiency are regarded viable means for Malaysia to reduce dependency on fossil fuels and improve the environment Indicator: Renewable energy is known to the general public as the fifth fuel. Indicator: Renewable Energy is part of the school curricula. Indicator: Renewable energy and energy efficiency are part of the continuous education in Universities in Malaysia.	7000 primary and 2000 secondary school teachers trained in RE and EE. CETREE receives core funding from university and generate income from projects. Cooperates with the Ministry of Energy and the National Utility on tailor made training programs. Continuous training and curriculum development, including Certified Energy Managers that through their work have reached 35% non-technical energy savings in hospitals and private buildings. Preparing Master's program on RE and EE. Extending activities to other ASEAN countries.
Environmental Support Programme Phase 2 (2008 – 2012) - 104.Indonesien.1.MFS.4 - Component 1: Support to Public Sector Institutions			
The overall objective of ESP 2 was formulated as follows: <i>"Sustainable Environmental Management in Support of Livelihoods in Indonesia"</i> - with Component 1 focussing on Support to Public Sector Institutions	Requirements that SEAs take place prior to interventions widely recognised; and supported by Environmental Law and by regulations and guidelines.	"Practical instruments and systems for addressing the environmental implications of the development cycle (policy, planning, implementation and regulation) developed, tested and adopted in partner ministries and districts." Component 1 was successful in embedding Strategic Environmental Assessments, including passing Law making SEAs mandatory; and building SEA capacity at Central and decentralised levels.	Component 1 includes several success stories. SEA process can have significant impact on the environment (through implementation of the plans and the subsequent projects). It is a reasonable assumption that, if the current momentum behind the SEAs can be maintained, similar significant impacts can be generated in Indonesia. However: measuring is difficult, as the 5 original outputs were changed to 3 revised outputs with changes in scope half-way through the Programme.

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Environmental Support Programme Phase 2 (2008-2012) - 104.Indonesien.1.MFS.4 - <u>Component 2</u>: Energy Conservation in Industrial, Commercial and Public Sector.			
The overall objective of ESP 2 was formulated as follows: <i>"Sustainable Environmental Management in Support of Livelihoods in Indonesia"</i> , with Component 2 focussing on Energy Efficiency in Construction and use of Large Buildings	Green building codes, in particular, and the need for energy efficiency in general, have become more accepted and widespread - coupled with the reduction in (fuel and energy) subsidies.	<p>"Energy efficiency measures are increasingly adopted by major industrial, commercial and public sector consumers of energy"</p> <p>The immediate objectives of Component 2 were never practicable in the time and were anyway <u>impossible to measure</u>. The M&E system was criticised for being non-existent.</p>	Many of the outputs could not be delivered in the time available. In addition, the Component 2 Log-Frame was changed at least 3 times during the Component's lifetime. Outputs were revised, mutated several times and included the addition of a 4th untitled output to take up the slack in disbursement. The only Output which survived the revisions was the Clearing-House for Energy Efficiency. This was established but closed almost immediately following the end of ESP 2.
Environmental Support Programme, 3rd Phase (2013-2017) - 104.Indonesien.1.MFS.5. <u>Component 2</u>: Support to the Implementation of Energy Efficiency, Energy Conservation and Renewable Energy Policies			
The overall ESP3 development objective is: <i>"Inclusive and sustainable growth through improved environmental management for climate change mitigation and adaptation"</i> .	While some support is provided at the national level, by far the larger proportion is allocated to decentralized levels, <u>including for pilot and demonstration activities in the province of Central Java</u> . The ESP is still under implementation - therefore too early to judge achievements. The pilot projects were intended to deliver specific lessons, be more visible and tangible, and consequently, impact on policy.	<p>"EE, EC (Energy Conservation) and RE policies effectively implemented with a focus on the local government level, and experiences from pilot projects used to strengthen national policies, strategies and climate changes planning".</p> <p>Component 2 supports the implementation of EE, EC and RE at national and provincial level.</p>	Still under implementation. Specifically, as regards the Central Java pilot projects: slow implementation and low levels of disbursement are cause for concern. In order to address this: (i) deadline for completion extended to 2018; (ii) a number of pilot projects have been dropped; and (iii) a FIDIC engineer with a broad mandate will be contracted to prepare tender packages for all remaining pilot projects and supervise implementation.